Amendments to the Drawings

The attached sheet(s) of drawings includes changes to Fig(s) 1, 2, 3, 4 and 5. The sheet(s), which includes Fig(s) 1, 2, 3, 4 and 5, replaces the original sheet(s) including Fig(s) 1, 2, 3, 4 and 5.

Attachment: Five (5) Replacement Sheet(s)

REMARKS

Entry of this response and reconsideration and allowance of the above-identified patent application are respectfully requested. Claims 1-13 and 18 stand rejected in the office action. Claims 14-17 and 19-29 previously have been withdrawn. Claim 3 has been amended, and no claims have been canceled or added. Therefore, following entry of the present response, claims 1-13 and 18 will remain pending in the present application.

The specification and drawings were objected to because reference character "501" has been used to designate both a resistive element and capacitor. Paragraph 0034 of the present specification has been amended to correct the typographical error. Withdrawal of the objection to the specification and the drawings is respectfully requested.

Claim 3 was objected to because of a typographical error. Claim 3 has been amended to read "milliamps." Withdrawal of the objection to claim 3 is respectfully requested.

Claims 1-2, 4, 7-13 and 18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,457,621 to Munday *et al.* ("Munday"). In particular, the office action contends that Munday's "+5 at 96, 26, VDD and/or +5 .5, see fig . 2-3" teaches the presently claimed features of "a DC power source in parallel circuit configuration with the AC voltage, wherein the DC power source provides a DC bias voltage to the AC voltage." (*Office Action dated December 27, 2005* at p. 4). With all due respect to the contentions in the office action, applicant respectfully disagrees.

As mentioned in the present Background of the Invention section, electronic meters power their electronic circuitry by using power supply devices to generate DC power from the already-available and constantly-present AC line voltage, regardless of the value of the available line voltages (*e.g.,* 96 to 480 volts RMS). Because the voltage being sensed is an

alternating voltage signal, the sensed voltage (and therefore also the voltage reference provided to the meter's electronic circuitry) normally swings above and below a referenced ground level. In the context of an electronic circuit that receives DC power from a power supply, for example, often the less expensive electronic circuits cannot receive a signal that drops below the power supply's negative power rail (e.g., for certain power supplies the positive limit may be +5 volts and the negative limit may be 0 volts). Therefore, without some help, these electronic circuits often cannot use the AC power line's voltage because it swings below the power supply's acceptable level.

This "help" may be provided via biasing techniques. In particular, a DC power source is placed in parallel with the AC line voltage. In this way, the DC power source provides a DC bias voltage to the AC voltage to keep the AC power line voltage from swinging below the power supply's acceptable level. In just one example, the DC power source may include a diode and resistive element that operate to develop a DC voltage that biases the AC voltage inputted to the meter. In this example, with a forward biasing current of approximately 0.5 ma, the diode may provide a biasing voltage of approximately 0.584 volts, and thus keep the AC power line voltage from swinging below the power supply's acceptable level.

The Examiner is respectfully requested to recognize that Munday does not describe biasing the inputted AC voltage in such a manner. In fact, the only biasing discussed at all in Munday is with reference to a voltage blocking clamp that limits voltage applied to a transformer in the power supply. The biasing means in the voltage blocking clamp operates to insure that the voltage provided by the voltage clocking clamp does not exceed a desired level. This desired level represents the most voltage that the electronic circuitry can handle. In other words, and unlike the presently claimed features, Munday does not discuss biasing to

keep the inputted AC voltage from swinging below the power supply's acceptable level. Quite the contrary, Munday's biasing is accomplished to clamp the inputted voltage to keep it from exceeding a certain value. The relevant portion of Munday, Column 8 line 60 to Column 9 line 3, is provided:

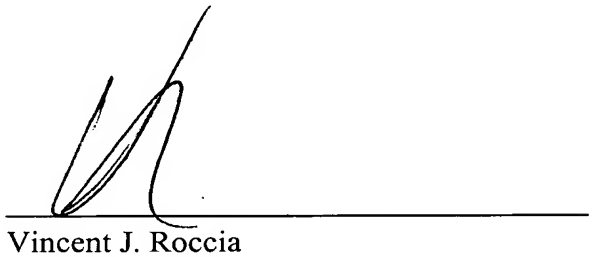
> As discussed above, transistors 344 and 346 act as a voltage clamp and limit the voltage applied to switching member 302. At a 528 VAC line voltage, the input to the clamping circuit reaches 750 volts. During lightning-strike surges, this voltage may approach 1500 volts. When the voltage at the output of bridge rectifier 348 exceeds 400 volts, zener diodes 352 and 354 begin to conduct. These diodes, along with the 33 K.OMEGA. resistors 356, 358 and 360, create bias voltages for transistors 344 and 346. Transistors 344 and 346 act as source followers and maintain their source voltages a few volts below their gate voltages.

Also, claims 3 and 5-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Munday as applied to claims 2 and 1. For the same reasons discussed above, applicant respectfully requests withdrawal of the rejection of claims 3 and 5-6 under 35 U.S.C. § 103(a) over Munday.

CONCLUSION

In view of the foregoing, applicant respectfully submits that the claims are allowable and that the present application is in condition for allowance. Reconsideration of the application and an early Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow the present application for any reason, the Examiner is encouraged to contact the undersigned attorney, Vincent J. Roccia at (215) 564-8946, to discuss resolution of any remaining issues.

Date: March 24, 2006



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